

Listing of Claims

1. (Currently amended.) A tie-line flow control system comprising;

a computer having a central processor that executes instructions, a memory for storing the instructions to be executed, a means for communicating information; and

said instructions stored in the memory of the computer causing the central processor to:

receive request bid curves for ~~inter-regional~~ transactions from selling entities;

receive demand bid curves for ~~inter-regional~~ transactions from purchasing entities;

synchronize the request and demand bid curves at a selected time interval;

between synchronizing intervals, iterate information with the selling and purchasing entities to ensure clearing of supply and demand bids at a clearing time so that tie-line real and reactive power flows on the tie-lines interconnecting the selling entities are the same;

communicate to the selling and purchasing entities accepted tie-line flow quantities and corresponding prices at the clearing time; and

ensure that all ~~inter-regional~~ transactions clear as agreed upon in ~~the~~ a previous synchronized interval.
2. (Currently amended.) The system of claim 1, wherein the clearing of supply and demand bids comprises application of a clearing algorithm minimizing, subject to a technical flow law based on ~~Kirchoff's Current Law~~ conservation of charge, a sum of:

deviations between tie-line flow controlled by the selling entities and tie-line flow caused by all ~~inter-regional~~ transactions;

a charge related to the price of tie-line flow controlled by the selling entities; and

a benefit related to the use of tie-line flows and paid by all ~~inter-regional~~ transactions.

3. (Original) The system of claim 1, wherein the purchasing entities comprise inter-regional transactions.

4. (Original) The system of claim 1, wherein the selling entities comprise transmission providers, control areas, and independent system operators.

5. (Original) The system of claim 1, wherein the selling entities comprise control areas only.

6. (Currently amended.) The system of claim 1 wherein the selected time interval ~~may be~~ is selected from the group consisting of hourly, daily, weekly, monthly and/or seasonally.

7. (Original) The system of claim 1, whereby the computer facilitates implementation of transmission contracts for purchasing entities.

8. (Original) The system of claim 1, whereby the computer provides coordinated reliability management through non-uniform reliability provisions which are a function of the selling entities' regulatory and an optimal tariff structure.

9. (Currently amended.) Method for tie-line flow control among selling entities by an entity facilitating implementation of transmission contracts for purchasing entities, said entity executing the steps of:

receiving request bid curves for ~~inter-regional~~ transactions from selling entities;

receiving demand bid curves for ~~inter-regional~~ transactions from purchasing entities;

synchronizing the request and demand bid curves at a selected time interval;

between synchronizing times, iterating information with the selling and purchasing entities to ensure clearing of supply and demand bids at a clearing time so that tie-line real and reactive power flows on the tie-lines interconnecting the selling entities are the same;

communicating to the selling and purchasing entities accepted tie-line flow quantities and corresponding prices at the clearing time; and

ensuring that all ~~inter-regional~~ transactions clear as agreed upon in ~~the a~~ previous synchronized interval.

10. (Currently amended.) The method of claim 9, wherein the clearing of supply and demand bids comprises application of a clearing algorithm minimizing, subject to a technical flow law based on ~~Kirchoff's Current Law~~ conservation of charge, a sum of:

deviations between tie-line flow controlled by the selling entities and tie-line flow caused by all ~~inter-regional~~ transactions;

the charge related to the price of tie-line flow controlled by the selling entities; and

the benefit related to the use of the tie-line flows and paid by all the ~~inter-regional~~ transactions.

11. (Original) The method of claim 9, wherein the purchasing entities comprise inter-regional transactions.

12. (Original.) The method of claim 9, wherein the selling entities comprise transmission providers, control areas, and independent system operators.

13. (Original) The method of claim 9, wherein the selling entities comprise control areas only.

14. (Original) The method of claim 9, wherein the selected time interval may be hourly, daily, weekly, monthly and/or seasonally.

15. (Original) The method of claim 9, further comprising the step of providing coordinated reliability management through non-uniform reliability provisions which are a function of the selling entities' regulatory and an optimal tariff structure.

16. (Canceled.)

17. (Canceled.)

18. (Canceled.)